

US-PAT-NO: 6628899

DOCUMENT-IDENTIFIER: US 6628899 B1

TITLE: IMAGE PHOTOGRAPHING SYSTEM,
IMAGE PROCESSING SYSTEM, AND
IMAGE PROVIDING SYSTEM
CONNECTING THEM, AS WELL AS
PHOTOGRAPHING CAMERA, IMAGE
EDITING APPARATUS, IMAGE
ORDER SHEET FOR EACH OBJECT
AND METHOD OF ORDERING IMAGES
FOR EACH OBJECT

DATE-ISSUED: September 30, 2003

INVENTOR-INFORMATION:

NAME	STATE	ZIP CODE	CITY
Kito; Eiichi			Kanagawa
N/A	N/A	JP	

US-CL-CURRENT: 396/56, 348/207.1 , 348/207.2 ,
348/211.99 , 348/231.3
348/333.02 , 355/40 , 396/311 ,
396/429

ABSTRACT:

The image photographing, processing and providing systems as well as the photographing camera utilize a system which has a second communication device for transmitting photographing information of an object when at least the object is photographed, a photographing device, a first communication device operated in association with the photographing

device for receiving the photographing information transmitted from the second communication device and a storing unit for storing the photographing information received by the first communication device and the image data of the images of the photographed object which are related to each other. The image editing apparatus, the image order sheet and image ordering method for each object utilize the photographed result by the image photographing system and the photographing camera. These systems and the camera can effectively function even if many are installed in a wide site such as a theme park by the application of the transmitting/receiving function. The camera, the apparatus, the order sheet and the ordering method can simply and surely create albums and select photographs for ordering.

34 Claims, 19 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 14

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Detailed Description Text - DETX (130):

The **image combining section 95 edits and combines the reduced images such as the thumbnail images** of the images having the particular object which is reduced by the image processor 94 for the purpose of preparing the order sheet for prints (images) of each object (hereinafter

simply referred to as order sheet). Here, it is preferably that, as in an order sheet 110 for images of the respective objects shown in FIG. 17, letters such as the name 111 of the particular object "Ms. Hanako Fuji", the title 112 of the group tour "Order Sheet for Photographs in the Tour of . . . ", "Photograph Numbers" 114 "No. 3, No. 7, No. 26, No. 30, and No. 34" which are order numbers of the respective reduced images 113, and "Photograph Numbers/Number of Orders" in the order form 115 are combined with the edited thumbnail images. Of course, the mark or the name of a processing laboratory or a shop or drawing may also be combined therewith.

Detailed Description Text - DETX (132):

The display section 97 is a monitor (display) for displaying the result of search by the image search section 92, a reproduced image of image data read by the image reading section 93 and its photographing information (such as its ID information), the reduced images such as the thumbnail images by the image processor 94, the order sheet combined by the image combining section 95, and the like.

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Detailed Description Text - DETX (137):

Preview display is executed using the job output setup file combined in step S2102 or that of a job selected as a job to be edited in step S2103, and a target job list is displayed in step S2104. The preview window displays **thumbnail images of all pages contained in jobs to be edited or combined** in accordance with their layouts. On the other hand, the target job list displays the names, number of pages, and page layouts of jobs to be edited or combined. In this list display, in case of the combine operation, the job order can be sorted desirably, and a desired job can be deleted from the target jobs. When the target job is operated in this manner, the sequence shown in FIG. 21 is executed again, and the preview window and target job list are re-displayed.

US-PAT-NO: 6535298

DOCUMENT-IDENTIFIER: US 6535298 B2

TITLE: Storing and retrieving
digital camera images via a
user-completed proof sheet

DATE-ISSUED: March 18, 2003

INVENTOR-INFORMATION:

NAME	STATE	ZIP CODE	CITY	COUNTRY
Winter; Kirt A			San Diego	
	CA	N/A		N/A
Hatcher; John Mark			Escondido	
	CA	N/A		N/A

US-CL-CURRENT: 358/1.16, 355/40 , 358/1.15 ,
358/487

ABSTRACT:

Methods for storing and retrieving digital image files, such as photographs taken by a digital camera, to and from an archival image storage system such as a file server or a mass storage medium. A **combination proof sheet and order form is printed containing an array of thumbnail images**, corresponding image selection user designation areas, and a storage selection user designation area markable by the user to specify selected images to be stored on or retrieved from the image storage system. The form is scanned to detect the user

designation areas completed by the user, and then perform the indicated operation. A printing system includes programming for generating, scanning, and processing the form, and for storing and retrieving the selected images.

28 Claims, 29 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 22

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Abstract Text - ABTX (1):

Methods for storing and retrieving digital image files, such as photographs taken by a digital camera, to and from an archival image storage system such as a file server or a mass storage medium. A **combination proof sheet and order form is printed containing an array of thumbnail images,** corresponding image selection user designation areas, and a storage selection user designation area markable by the user to specify selected images to be stored on or retrieved from the image storage system. The form is scanned to detect the user designation areas completed by the user, and then perform the indicated operation. A printing system includes programming for generating, scanning, and processing the form, and for storing and retrieving the selected images.

Detailed Description Text - DETX (11):

The **combination proof sheet and order form 22 (FIG. 3A) includes image** selection user designation areas such as 54 (FIG. 3C) adjacent each of the **thumbnail images** I. The user designation areas 54 include rows and columns of bubbles 56 that can be manually filled in by a user with a pen or a pencil. Other discrete regions could be utilized as user designation areas such as vertical stripes or slots between two adjacent vertical bars. The user designation areas could consist of discrete bounded regions in which a user could write in print or cursive form numbers, digits or symbols that could be read with optical character recognition (OCR) software. Alternatively, a user could punch out holes or apply stickers or conductive markers. Besides optical scanning, the printer could use electrical or mechanical detection of the completed user designation areas. The user designation areas 54 of the form 22 also include user readable printed indicia in the form of the column headings "Size" and "Qty" (quantity) in addition to row headings "3.5.times.5", "4.times.6", "5.times.7", "8.times.10" and "Cstm". The user designation areas are labeled "B" in FIG. 3A. The user can fill in one or more bubbles 56 in the user designation area B adjacent a particular thumbnail image I to "order" the desired number and size of final prints of that digitally stored image. Filling in the bubble next to "Cstm" causes the ink jet printer 14 to generate the custom proof sheet and order form 58 (FIG. 4)

for that particular thumbnail
image on a single sheet of paper. The layout and
use of the custom form 58
will be described in detail later on.

US-PAT-NO: 5898436

DOCUMENT-IDENTIFIER: US 5898436 A

TITLE: Graphical user interface for
digital image editing

DATE-ISSUED: April 27, 1999

INVENTOR-INFORMATION:

NAME	STATE	ZIP CODE	CITY
Stewart; William Edward	CA	N/A	Poway
Monty; Melissa Lee	CA	N/A	San Diego
Mears; Wade Patrick	CA	N/A	San Diego
Escobedo; Adelaida	CA	N/A	Bonita
Jia; Charles Chi	CA	N/A	San Diego
Zheng; James Xin-Ping	CA	N/A	San Diego

US-CL-CURRENT: 345/594, 345/804 , 345/840

ABSTRACT:

Chromatic adjustments to the overall color balance of the image are presented on one screen and tonal adjustments (such as brightness or contrast) that do not affect the overall color balance are presented on another screen. The chromatic adjustments include at least three independent variables each of which can be separately increased or decreased,

while the tonal adjustments include brightness and contrast that can be separately increased or decreased. Such a grouping concentrates the user's attention on only two or three adjustments related to a single readily identifiable deficiency in the original image, and thus not only facilitates image improvement but also makes it easier to selectively undo the effects of some adjustments but not others. Each adjustment is displayed as a pair of preview images which respectively show the effect of a one step increment or decrement of the associated variable. Each pair of preview images are clearly separated from all other images on the same screen and are displayed as two adjacent "buttons" either of which can be actuated by the user to effect the displayed result. The step size is adjustable by means of a single slider control that is effective for all the adjustments on that screen. Each image adjustment screen includes thumbnail images corresponding to the original image and to the revised image. The thumbnail revised image is the largest image on the screen and is the focal point of attention for the user.

12 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

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Detailed Description Text - DETX (3):

In an exemplary embodiment as shown in simplified block diagram form in FIG. 2, the software 22 that controls PC 14 includes an operating system 24 (such as Microsoft Windows 95) having a generic graphical interface 26 whereby the user may use the pointer 18 via a pointer driver 28 to select and operate various controls (such as buttons and sliders) appearing on the screen of the monitor 16 under the control of a display driver 30 thereby generating control signal inputs 32 to an application program such as image processor program 34. The control signals 32 include a first set associated with a chromatic adjustment routine 36: IN, OUT, LARGE, SMALL, BLUE, YELLOW, GREEN, MAGENTA, RED, CYAN, REVERT, and a second set associated with a tonal adjustment routine 38: IN, OUT, LARGE, SMALL, LIGHT, DARK, HIGH LOW and REVERT. Image processor 34 also includes memory 40 for storing in known fashion a **thumbnail of the original image** (i.e., before the current set of adjustments were applied, but including any previously saved adjustments, as well other corresponding **images that incorporate various selected combinations** of adjustment steps. Image processor 34 receives image data from scanner 12 via a scanner driver 42 and outputs image data not only to the monitor 16 via the graphics interface 26, but also via printer driver 44 to printer 20.

US-PAT-NO: 6052492

DOCUMENT-IDENTIFIER: US 6052492 A

TITLE: System and method for
automatically generating an image
to represent a video sequence

DATE-ISSUED: April 18, 2000

INVENTOR-INFORMATION:

NAME	STATE	ZIP CODE	CITY
Bruckhaus; Tilmann			Sunnyvale
CA	N/A	N/A	

US-CL-CURRENT: 382/284, 345/723 , 382/305

ABSTRACT:

A system automatically generates a representative image to represent a video sequence of a video program, and facilitates editing and manipulating of the video program. The system comprises receiving means (such as a frame selector or a unit extractor) for receiving a frame having at least one unit from a sequence of frames, resolving means (such as a unit extractor) for resolving one of the at least one unit, and generating means (such as an image engine) for generating an image representative of the sequence based on the unit. The system may further comprise a sequence divider for dividing the video program into multiple video sequences, and a frame selector for selecting the first

sequence from the multiple sequences. The system may also comprise a unit distinction engine for determining distinct units from the units resolved by the resolving means, a unit predominance engine for defining predominance of each of the distinct units, and a unit representation engine for determining the distinct units which most uniquely represent the first video sequence. The resolving means preferably generates the representative image based on the distinct units determined by the unit representation engine to represent the first video sequence most uniquely. The resolving means may include an enhancement module for adding artwork or other enhancements to the representative image.

14 Claims, 10 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 9

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Detailed Description Text - DETX (14):

The image engine 235 uses the selected units to generate a representative image 140 for a video sequence 135. The representative **image 140 may include a still image, a "moving" image or a combined still and moving image.** For example, if the best representative units include a basketball and a scoreboard, the image engine 235 may generate a

still image of the basketball
superimposed over the scoreboard. The enhancements
module 245 of the image
engine 235 enhances the generated image, for
example, by adding additional
descriptive artwork to the generated image. For
example, if the basketball
appears to move across the frames of a sequence
from the left side to the right
side, then the enhancements module 245 may place
lines representing air
movement to the left of the basketball. The
representative image 140 will thus
be a still image of the scoreboard having a
superimposed basketball with
air-defining lines on the left side.
Alternatively, to represent the movement
of the basketball, the enhancements module 245 may
create a **thumbnail video**
image of a basketball moving from the left to the
right. The representative
image will thus be the scoreboard having a
superimposed moving basketball
thumbnail video image.

US-PAT-NO: 6616359

DOCUMENT-IDENTIFIER: US 6616359 B1

TITLE: Print control method and
apparatus

DATE-ISSUED: September 9, 2003

INVENTOR-INFORMATION:

NAME	STATE	ZIP CODE	COUNTRY	CITY
Nakagiri; Koji	N/A	N/A	JP	Ohta-ku
Nishikawa; Satoshi	N/A	N/A	JP	Ohta-ku
Mori; Yasuo	N/A	N/A	JP	Ohta-ku

US-CL-CURRENT: 400/582, 400/61 , 400/70 , 400/76

ABSTRACT:

A spooler stores intermediate data and an output job setup file in a spool file, and when a stored job is selected, a previewer displays a list of jobs and previews of print images upon which a job including the selected page or a page included in the selected job is identifiably displayed in correspondence with the page or job.

15 Claims, 32 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 32